

Author: [ADVANCED](#)

Volume Page

Keyword: [TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

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[\[PDF \(596K\)\]](#) [\[References\]](#)**Improvement of Bonding to Bleached Bovine Tooth Surfaces by Ascorbic Acid Treatment**[Koichi MURAGUCHI](#)¹⁾, [Satsuki SHIGENOBU](#)¹⁾, [Shiro SUZUKI](#)²⁾ and [Takuo TANAKA](#)¹⁾

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Abstract:

The purposes of this study were twofold: (1) to examine the effects of bleaching on the bond strength of an adhesive to bovine tooth surfaces; and (2) to explore the effectiveness of an ascorbic acid application in preventing the deterioration of bonding ability due to bleaching. In the experimental groups, ascorbic acid was applied to the bleached bovine tooth surfaces. In the control groups, the tooth specimens were bleached but no ascorbic acid application was carried out. All bonded specimens were subjected to shear bond test, and the data were statistically analyzed with twoway ANOVA and Bonferroni's test ($p=0.05$). Bond strengths to the bleached specimens were significantly lower than those of non-bleached specimens. No statistical differences were found in bond strength between the bleached and non-bleached groups when the ascorbic acid treatment was carried out. Results of this study suggested that ascorbic acid application was effective in preventing the reduction of bonding ability to bleached teeth.

Key words:[Bleaching](#), [Shear bond strength](#), [Ascorbic acid](#)



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